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(54) Title: PROTEIN KINASE MODULATION BY HOPS AND ACACIA PRODUCTS

(57) Abstract: Botanical compounds to modulate kinase activity are disclosed. The compounds and methods disclosed also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit inflammatory response selectively. The compositions contain at least one fraction isolated or derived from hops or *Acacia*.

## INTERNATIONAL SEARCH REPORT

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PCT/US 06/47196

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(8) - A61K 38/43; A61K 36/00 (2007.10) USPC - 424/94.1; 424/725; 424/778 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC(8) - A61K 38/43 (2007.10) USPC - 424/94.1, 424/725, 424/778 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched IPC(8) - A61K 38/43; A61K 36/00 (2007.10) USPC - 424/94.1, 725, 778, 779, 775 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWest, DialogPRO, Google Patent, Google Scholar, PubMed/Medline, WIPO Search Terms Used: , kinase, kinase activity, hops, Acacia, cox\$, modulate, and combinations thereof.		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X <u>Y</u>	US 2003/0180402 A1 (Jia et al.) 25 September 2003 (25.09.2003). Entirety. Esp., abstract, para [0014], [0023], [0032], [0062], [0072], [0078].	1-2, 10-13, 17-18, 26-29 3-9, 14-16, 19-25, 30-34
Y	US 2005/0129791 A1 (Babish et al.) 16 June 2005 (16.06.2005). Esp., abstract, para [0019], [0060], [0119], [0120].	8, 15, 24, 31, 33-34
Y	US 2004/0115290 A1 (Tripp et al.) 17 June 2004 (17.06.2004). Esp., abstract, para [0061], [0062], [0063], [0066].	4-7, 20-23
Y	US 2005/0192356 A1 (Babish et al.) 1 September 2005 (01.09.2005). Esp., abstract, para [0016], [0017], [0080].	16, 32
Y	US 2005/0042317 A1 (Babish et al.) 24 February 2005 (24.02.2005). Esp., abstract, para [0040].	14, 30
Y	Ward et al., "Therapeutic Potential of Phosphoinositide 3-Kinase Inhibitors", Chemistry & Biology (March 2003) vol. 10, pages 207-213. Esp. page 209, para 3; page 210, para 1.	3, 19
Y	Stevens et al., "Xanthohumol and Related Prenylflavonoids from Hops and Beer: to your good health", Phytochemistry (May 2004) vol. 65, page 1317 (Abstract only).	9, 25
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